



U.S. Department of Transportation
Federal Highway Administration

**FEDERAL HIGHWAY
ADMINISTRATION
PERFORMANCE PLAN
FOR THE
PRESIDENT'S FISCAL YEAR 1999
BUDGET**

FHWA PERFORMANCE PLAN FY 1999

Introduction

The FHWA administers three major programs that: (1) provide federal assistance to the States to construct and improve the National Highway System, urban and rural roads, and bridges (Federal-aid Highway Program); (2) set minimum safety standards for trucks and buses to promote safe commercial motor vehicle operations to reduce crashes and educate the public about sharing the roads with trucks (Motor Carrier Safety Program); and (3) provide access to and within national forests, national parks, Indian reservations, and other public lands (Federal Lands Highway Program). Working with its partners in the public and private sectors, FHWA's programs are committed to creating the best transportation system in the world for the American people through proactive leadership, innovation, and excellence in service.

In 1999, approximately 3,550 people will work in FHWA headquarters and field offices to carry out these programs and achieve the Agency's strategic goals and objectives. Achieving these goals will also contribute toward achieving the strategic and performance goals in the DOT Strategic Plan. The goals and objectives in the FHWA Strategic Plan are based on the reauthorizing legislation proposed by the Administration, the National Economic Crossroads Transportation Efficiency Act (NEXTEA). This Plan will need to be revised if there is a significant difference in the final legislation.

Overview of the FHWA Strategic Plan

The FHWA Strategic Plan is the Agency's approach to align efforts and resources, and measure progress toward specific objectives over the next 10 years (1998 -2008). The FHWA role in accomplishing these goals is one element in the total Department of Transportation (DOT) program to advance the quality and performance of our Nation's transportation system. Our partners, customers, and stakeholders in the highway and transportation community each play a vital role in the success of our program.

FHWA Vision

**Create the best transportation system
in the world.**

The FHWA, in partnership with the State, local and private transportation communities, is preparing for the future. Our vision is to create the safest, most efficient and effective highway intermodal transportation system in the world for the American people--a transportation system where everyone has access within and beyond their community and to the world; a transportation system where crashes, delays, and congestion are significantly reduced; a transportation system where freight moves easily and at the lowest costs across towns, States, and international borders;

a system where roads protect ecosystems and where travel on our roadways does not degrade the quality of the air; a system where pedestrians and bicyclists are accommodated; and a system where transportation services are restored immediately after disasters and emergencies.

FHWA Mission

We continually improve the quality of our Nation's highway system and its intermodal connections.

We carry out this mission by providing leadership, expertise, resources and information in cooperation with our partners to enhance the country's economic vitality, the quality of life, and the environment.

Strategic Goals and Objectives:

The FHWA has developed five strategic goals to support accomplishing our Mission and achieving our Vision. The FHWA strategic goals and objectives are aligned with the Department's Strategic Goals, and our progress in achieving them will contribute to achieving the overall transportation goals of the Nation. Many of our goals and objectives are interrelated, e.g., improving the infrastructure and operations of the highway system promotes productivity, safety, and national security as well as mobility. But in some cases, work on one strategic goal could potentially impact our ability to achieve another goal, e.g., improving mobility could effect our ability to improve the quality of the natural environment. The FHWA is committed to finding solutions that will advance all of our objectives simultaneously.

The FHWA recognizes that it cannot achieve these goals and objectives without the active participation and support of its employees, partners throughout government, academia, and in the private sector. Since the beginning of the highway program, planning, constructing, and maintaining the Nation's highway system has been a cooperative effort. These partnerships need to continue, expand, and be strengthened to meet the transportation demands of the 21st century. The FHWA recognizes that data to measure program performance may involve data collection by the States, local governments, and other organizations. The FHWA will continue its work with our partners to streamline all data requirements and make them more effective in meeting our needs.

The FHWA's Strategic Goals and Objectives were developed based on assumptions about both the internal and external environment. If in the future, there are significant differences from the forecasted trends in personal or commercial transport these may affect our ability to meet the Strategic Goals and Objectives we have set. Another critical assumption is that the Administration's proposal for the reauthorization of the Intermodal Surface Transportation Efficiency Act (ISTEA), the National Economic Crossroads Transportation Efficiency Act (NEXTEA), is enacted by Congress.

Targets set for FY 1999 will be influenced by previous years funding and by the funding and activity of State and local authorities who make most project selection decisions for highway investment.

FHWA STRATEGIC GOALS

MOBILITY

Continually improve the public's access to activities, goods, and services through preservation, improvement, and expansion of the highway transportation system and enhancement of its operations, efficiency, and intermodal connections.

SAFETY

Continually improve highway safety.

PRODUCTIVITY

Continuously improve the economic efficiency of the Nation's transportation system to enhance America's position in the global economy.

HUMAN AND NATURAL ENVIRONMENT

Protect and enhance the natural environment and communities affected by highway transportation.

NATIONAL SECURITY

Improve the Nation's national defense mobility.

FHWA STRATEGIC GOAL: MOBILITY

Continually improve the public's access to activities, goods, and services through preservation, improvement, and expansion of the highway transportation system and enhancement of its operations, efficiency, and intermodal connections.

OBJECTIVES:

The FHWA has identified the following objectives to move the Agency toward achieving its strategic goal of mobility over the next ten years:

- 1. Preserve and enhance the infrastructure of Federal-aid highways with emphasis on the National Highway System (NHS).**
- 2. Improve the operation of the highway systems and intermodal linkages to increase transportation access for all people and commodities.**
- 3. Minimize the time needed to return highways to full service following disasters.**

PERFORMANCE GOALS AND INDICATORS:

Progress in achieving the Agency's Mobility Objectives will be measured at the end of FY 1999 against the following performance goals:

Objective: Preserve and enhance the infrastructure of Federal-aid highways with emphasis on the NHS.

Performance Goal	Indicator
Increase percentage of kilometers (miles) on the NHS that meet Owner-Agency managed pavement performance for acceptable ride quality ($IRI \leq 2.6$ m/km (170 in/mi)).	Percent of kilometers (miles) on the National Highway System (NHS) that meet pavement performance standards for acceptable ride quality (International Roughness Index less than or equal to 2.68 m/km (170 in/mi))
Reduce the percentage of NHS bridges that are classified as deficient.	Percent deficient (structurally deficient or functionally obsolete) bridges on the National Highway System (NHS)
Reduce the percentage of all bridges that are classified as deficient.	Percent deficient (structurally deficient or functionally obsolete) bridges on all roads.

Objective: Improve the operation of the highway systems and intermodal linkages to increase transportation access for all people and commodities.

Performance Goal	Indicator
Increase user satisfaction with the Nation's highway systems to meet their needs.	Percent user satisfaction with the Nation's highway systems
Reduce delays on Federal-aid highways.	Hours of delay/1610 vehicle kilometers (1000 vehicle-miles) traveled
Improve intermodal connections on the NHS.	TBD
Improve quality and condition of Forest Highways that support resource goals of National Forest System.	<ul style="list-style-type: none"> ▶ Index based on weighted mileage condition of Forest Highway roads ▶ Percent of Forest Highway bridges not deficient
Improve quality and condition of the paved portion of Park Roads and Parkways that serves resource goals of National Park System.	<ul style="list-style-type: none"> ▶ Index based on weighted mileage condition of Park Roads and Parkways ▶ Percent of Park Roads and Parkways bridges not deficient
Improve the quality and condition of the Bureau of Indian Affairs (BIA) public roads.	<ul style="list-style-type: none"> ▶ Index based on weighted mileage condition of BIA public roads ▶ Percent of BIA public roads bridges not deficient ▶ Percent of BIA unpaved roads constructed to a standard
Increase customer satisfaction with Federal Lands Highway Program Administration.	<ul style="list-style-type: none"> ▶ Index based on results of customer surveys of program administration, completed design and completed construction

Objective: Minimize the time needed to return highways to full service following disasters.

Performance Goal	Indicator
Increase State and local officials' satisfaction with the FHWA emergency relief measures.	State and local officials' satisfaction with the FHWA emergency relief measures
Reduce the time it takes to restore damaged Federal-aid highway facilities to full service following an emergency or natural disaster.	<ul style="list-style-type: none"> ▶ Percent reduction in number of days to process requests within FHWA ▶ Percent increase in the number of permanent repair projects advanced using streamlined contracting techniques

HOW WE WILL ACHIEVE OUR MOBILITY GOAL AND OBJECTIVES:

Highways are the backbone of the Nation's intermodal transportation system and connect people, goods, and services. The FHWA administered programs and initiatives integrate highways across the country into a comprehensive intermodal national system. The FHWA's ongoing programs assist the States, Federal land management agencies, and tribal governments in maintaining and enhancing the current highway infrastructure. We also provide resources and technical assistance in response to major natural disasters in the United States and its territories. By identifying the National Highway System (NHS) and its intermodal connections as a primary area of interest we will be able to focus resources on initiatives that help achieve mobility and productivity goals. These programs and initiatives, with State and local partnership and implementation, will create the best highway system in the world. With mobility demands continually increasing in the future, the highway community's challenges are great. The FHWA strategies will focus on the following:

- ▶ **Enhancing the Infrastructure:** The FHWA will promote and facilitate innovations in transportation finance and pricing that will help State and local governments build the physical and electronic infrastructure of the transportation system to meet future demands. In addition to seeking new and innovative funding sources, the FHWA will focus research and technology innovations on ways to make transportation investments buy more and last longer.
- ▶ **Advancing 21st Century Technology:** Through extensive public and private partnerships, domestically, and internationally, FHWA will strive to ensure integration and deployment of ITS technologies to increase the capacity of the current highway system for passenger cars and commercial vehicles.
- ▶ **Improving System Operations:** Improving the operation of the highway system and its intermodal linkages supports the mobility, productivity, environmental, and safety goals. The FHWA initiatives to identify and share effective management systems and practices that address congestion, safety, incident management, work zone traffic control, and other operational issues, will result in improved highway operations.
- ▶ **Ensuring Emergency Relief:** In a natural disaster, the initial emergency response is provided via highways, and the community may not fully recover from the disaster until the highways are fully restored to pre-disaster condition. We work with our Federal, State, and local partners to ensure that highways can provide vital links for emergency relief during natural disasters and to ensure that full highway access is quickly restored to the disaster area.

FHWA programs designed to advance mobility include the **Federal-aid Program** and the **Federal Lands Highway Program**.

1. Federal-aid Program

The following **program activities, means and strategies, and annual performance goals and indicators** used to advance highway mobility reflect the efforts of the Federal-aid Program including the Intelligent Transportation Systems (ITS) Joint Program Office (JPO).

Related Program and Financing Schedule Program Activities:

	Estimated FY 1999 Obligations (millions):
<i>Federal -Aid Highways Program</i>	
Surface Transportation Program	5608
National Highway System	4257
Interstate Maintenance	4271
Interstate System Reimbursement	969
Bridge Program	2556
Congestion Mitigation/air quality improvement	1260
Flexible highway infrastructure safety	509
Integrated safety planning	50
Intelligent Transportation Systems	96
ITS/ITI Incentive Deployment	100
FHWA research and technology	126
Woodrow Wilson Memorial Bridge	180
Appalachian Highways	290
Administration	65
Research and Technology	174
Contract Programs	23
Other Programs	104
Emergency Relief Program	100
Minimum Allocation	692
Demonstration Projects	414
<i>State Infrastructure Banks</i>	150
<i>Transp Infrastructure Credit Enhancement</i>	100
<i>Miscellaneous Appropriations (All Program Activities)</i>	72
<i>Miscellaneous Trust Funds</i>	8
<i>Miscellaneous Highway Trust Funds</i>	
Intermodal urban demonstration project	4
Urban Highway corridor bicycle study	1
Highway Projects	26

Federal-aid Program Means and Strategies:

Ongoing means and strategies: The Federal-aid Program (1) partners with State and other authorities to promote infrastructure development and improvement through direct funding, grants and technical assistance, and (2) ensures efficient emergency response and restoration of damaged transportation infrastructure due to natural disasters or catastrophic events.

Special Initiatives and Focus for FY 1999

- ▶ Work with the American Association of State Highway Transportation Officials (AASHTO) to implement pavement condition protocols in an additional five states.
- ▶ Promote use of the updated PONTIS bridge management system; complete development of the VIRTIS module for rating bridges; begin development of the OPIS bridge design module. These improved models and methods to predict bridge maintenance and improvement needs, determine bridge ratings, and design bridges will enable more cost-effective decisions on bridge improvements.
- ▶ Implement ITS customer service programs in 30 additional targeted metropolitan and 10 additional rural areas to help them deploy properly integrated systems that use the National ITS Architecture and ITS Standards.
- ▶ Work with State and local agencies and other stakeholders to improve National Highway System (NHS) intermodal connectors (rail, air, and marine links).
- ▶ Address emergency relief processes that State and local officials have identified as needing improvement, so that response to disasters such as earthquakes is faster.
- ▶ Train field staff and States to use the laptop computer based Damage Survey Report (DSR) system, which will expedite the processing of highway damage survey and repair estimates as result of earthquakes, hurricanes, floods, other natural disasters or other emergencies.
- ▶ Conduct the "Find-it and Fix-it" research program, which uses non-destructive evaluation methods to find problems with highway structure, such as bridges, and uses high-performance materials to fix these problems.
- ▶ Conduct research to complete the SUPERPAVE program and begin implementation of it. SUPERPAVE is a comprehensive system for the design of asphalt concrete mixtures tailored to the unique performance requirements dictated by the traffic, environment, and the structural characteristics of a given site that will result in higher performing, longer lasting pavements.
- ▶ Conduct research in: 1) construction and contracting methods that will accelerate construction and maintenance; 2) high-performing maintenance and repair materials, methods, and equipment; and 3) materials and methods to minimize delays due to winter maintenance activities.

Efficiency and effectiveness strategies and activities: FHWA will expand creative financing programs that have shown promise in advancing infrastructure investment and improving highway mobility. In FY 1999, this will include \$150 million to expand the State Infrastructure Bank program, which enables states to underwrite bonds, enhance credit, and make loans. Grant

funding of \$100 million is also proposed for the new Transportation Infrastructure Credit Enhancement Program to assist in funding nationally significant transportation projects that otherwise might be delayed or not constructed because of their size and the uncertainty over timing of revenues.

Cross-cutting areas with other agencies: FHWA coordinates with the Federal departments and agencies who are signatory to the Federal Response Plan, and works closely with the Federal Emergency Management Agency (FEMA) in responding to natural and man-made disasters.

Federal-aid Program Indicators and Performance Targets for FY 1999:

Indicator: Percent of kilometers (miles) on the National Highway System (NHS) that meet pavement performance standards for acceptable ride quality (International Roughness Index less than or equal to 2.68 m/km (170 in/mi))

1999 Target: Increase the percentage to 91.5% in FY 1999

Baseline: 91.1% in FY 1996

Data: Highway Performance Monitoring System (HPMS)

Comment: Increasing vehicle miles traveled annually will accelerate the deterioration of pavement, affecting traffic speed, vehicle operating cost and safety. Improved condition makes travel safe and more efficient.

Indicator: Percent deficient (structurally deficient or functionally obsolete) bridges on the National Highway System (NHS).

1999 Target: Less than 24.3% in FY 1999

Baseline: 25.8% in FY 1996.

Data: National Bridge Inventory (NBI)

Comment: The aging of bridge structures, particularly those on the Interstate System, and accelerating deterioration of bridges due to increased truck volumes and vehicle loadings create an impediment to efficient travel when they are closed to traffic over a certain weight or act as traffic bottlenecks

Indicator: Percent deficient (structurally deficient or functionally obsolete) bridges on all roads.

1999 Target: Less than 31.4% in FY 1999

Baseline: 31.4% in FY 1996

Data: National Bridge Inventory (NBI)

Comment: Comments of the previous indicator apply. This indicator tracks all bridges as opposed to just those on the NHS.

Indicator: Percent user satisfaction with the Nation's highway systems

1999 Target: Baseline and target to be developed in FY 1998

Baseline: TBD

Data: National Personal Transportation Survey (NPTS)

Indicator: Hours of delay per 1610 vehicle kilometers (1000 vehicle-miles) traveled on Federal-aid highways.

1999 Target: A reduction in FY 1999. Target to be developed in FY 1998.

Baseline: TBD

Data: Highway Performance Monitoring System (HPMS)

Comment: Baseline data for this indicator, developed from HPMS data, will be available by April 1998. The Condition and Performance Report has traditionally reported volume/service-flow (V/SF) as the single indicator of system performance. V/SF is limited because it only addresses peak-hour and disregards total hours of congestion. As congestion increases, V/SF tends to stabilize, while hours of

congestion continue to increase, leading to misleading conclusions. For 1997, the C&P Report augments V/SF with daily vehicle miles-of-travel per lane-mile (DVMT/L-M), a better measure of overall density of highway use. This interim step allows us to transition to a true measure of overall vehicle delay. Delay is considered the single most informative measure of congestion, impacting user costs, emissions, accidents, and productivity measures.

<u>Indicator:</u>	State and local officials' satisfaction with FHWA emergency relief measures.
<u>1999 Target:</u>	Baseline and target to be developed in FY 1998
<u>Baseline:</u>	TBD
<u>Data:</u>	To be collected in FY 1998.
<u>Comment:</u>	A survey will be conducted in FY 1998, based on FY 1997 events approved for ER funding, to develop a measure of partner satisfaction and establish a baseline. The final survey form is being developed. The survey will be conducted through the FHWA division offices, and it is planned to provide the survey material to the division offices in April.
<u>Indicator:</u>	Percent reduction in number of days to process emergency relief requests within FHWA.
<u>1999 Target:</u>	Baseline and target to be developed in FY 1998
<u>Baseline:</u>	TBD
<u>Data:</u>	Administrative records.
<u>Comment:</u>	Data has been gathered from Headquarters' files and division office input covering time to process ER requests for all FY 1996 and FY 1997 events approved for ER funding. This data is being analyzed to determine an appropriate baseline, develop recommendations for FY 1999 target times, and develop suggestions for improving the process.
<u>Indicator:</u>	Percent increase in number of permanent emergency relief repair projects advanced using streamlined contracting procedures.
<u>1999 Target:</u>	Baseline and target to be developed in FY 1998
<u>Baseline:</u>	TBD
<u>Data:</u>	Administrative records.
<u>Comment:</u>	We are conducting a survey of the division offices to determine the extent streamlined contracting procedures have been used on all FY 1997 events approved for ER funding.

2. Federal Lands Highway (FLH) Program

The following **program activity, means and strategies**, and **annual performance goals and indicators** used to advance highway mobility reflect the efforts of the **Federal Lands Highway (FLH) Program**.

Related Program and Financing Schedule Program Activities:

	Estimated FY 1999 Obligations (millions):
<i>Federal-Aid Highways Program</i>	
Federal Lands Highways	512

Federal Lands Highway (FLH) Program Means and Strategies:

Ongoing means and strategies: Most of the Federal Lands Highway (FLH) Program is directed at improving the infrastructure serving Federal Lands. The following FLH **initiatives** advance highway mobility efforts.

Special Initiatives and Focus for FY 1999

- ▶ Implement strategies to control engineering and related costs to ensure 70% of funds are used for construction.
- ▶ Update and/or develop stewardship plans consistent with reauthorization provisions.
- ▶ Update 50% of road inventory and condition ratings.
- ▶ Update bridge inspection and ratings Memoranda of Understanding with Federal agencies.
- ▶ Develop alternative investment strategies to obtain maximum infrastructure condition within available funds.

Cross-cutting areas with other agencies: Federal Lands Highway (FLH), in partnership with other Federal Land Management Agencies, develops improved processes for more effective FLH program delivery.

FLH Program Indicators and Performance Targets for FY 1999:

<u>Indicator:</u>	Index based on weighted mileage condition of paved roads
<u>1999 Target:</u>	Forest Highways (FH)--Maintain index of 69
	Park Roads and Parkways (PRP)--Maintain index of 66
	Indian Reservation Roads (IRR)--Maintain index of 67
<u>Baseline:</u>	FH Index of 69 in FY 1996
	PRP Index of 66 in FY 1996
	IRR Index of 67 in FY 1996

Data : Forest Highway Road Inventory
Park Road Inventory
IRR Inventory

Comment: Pavement condition affects traffic speed, vehicle operating costs and safety. Improved condition makes travel safer and more efficient. The amount of FH funds is sufficient to maintain about 15% of the 29,000 miles of state and local roads designated as FH. The index provided is for 15% of the roads. With the increased funding provided for Park Roads and Parkways in NEXTEA, we expect to be able to make some improvement in Park Road conditions in the future.

Indicator: Percent of bridges not deficient
1999 Target: Forest Highways (FH)--Maintain 52%
Park Roads and Parkways (PRP)--Maintain 95%
Indian Reservation Roads (IRR)- Maintain 87%

Baseline: FH--52% in FY 1996
PRP--95% in FY 1996
IRR--87% in FY 1996

Data: National Bridge Inventory (NBI)

Comment: Deficient bridges are an impediment to efficient travel when they are closed to traffic. The FH and IRR are indexed for structural and functional deficiencies. The PRP is indexed for structural deficiencies only. PRP functional deficiencies are not recorded because many functional deficient bridges are historic and cannot be improved.

Indicator: Percent of unpaved roads constructed to a standard
1999 Target: Indian Reservation Roads (IRR)--Increase to 25%

Baseline: 24% in 1996

Data: Based on IRR Inventory

Comment: Approximately 75% of roads in Indian country are unpaved (21,000 miles) and seldom constructed to any standard. Many of these roads provide critical access between Indian housing and schools, emergency centers, and places of employment. This initiative attempts to upgrade unpaved roads to minimum standards.

Indicator: Index based on results of customer surveys of program administration, completed design and completed construction
1999 Target: Forest Highways (FH)--Increase satisfaction index to ≥85
Park Roads and Parkways (PRP)---Increase satisfaction index to ≥85
Indian Reservation Roads (IRR)---Increase satisfaction index to ≥84

Baseline: FH--Index of 84 in FY 1996
PRP--Index of 83 in FY 1996
IRR--Index of 82 in FY 1996

Data: FLH program administration surveys, completed design and construction surveys

Comment: Customer satisfaction indexes are used to assess the quality of the delivery process.

FHWA STRATEGIC GOAL: SAFETY

Continually improve highway safety

OBJECTIVE:

FHWA has identified the following objective to move the agency toward achieving its strategic goal of safety over the next ten years:

Reduce the number of highway-related fatalities and injuries by 20 percent.

PERFORMANCE GOALS AND INDICATORS:

Progress in achieving the Agency's Safety Objective will be measured at the end of FY 1999 against the following performance goals:

Performance Goal	Indicator
Reduce the number of highway-related fatalities.	<ul style="list-style-type: none">▶ The number of highway-related fatalities.▶ The rate of highway-related fatalities per 100 million vehicle miles traveled (VMT)
Reduce the number of highway-related injuries.	<ul style="list-style-type: none">▶ The number of highway-related injuries.▶ The rate of highway-related injuries per 100 million vehicle miles traveled (VMT)
Improve safety management processes to better identify and resolve highway safety problems.	<ul style="list-style-type: none">▶ Number of agencies (States and Metropolitan Planning Organizations (MPOs)) that conduct safety management process self-assessment and implement appropriate improvement plan.▶ Number of Communities with Safe Communities Programs▶ Number of agencies (States) adopting Road Safety Audit
Reduce number and severity of crashes in priority safety areas (run-off-road, pedestrian and bicycle, and States' targeted safety areas)	<ul style="list-style-type: none">▶ Number and severity (fatalities and injuries) of single vehicle run-off-road crashes.▶ Number and severity (fatalities and injuries) of pedestrian and bicycle crashes
Reduce the number and rate of fatalities involving large trucks.	<ul style="list-style-type: none">▶ Number of fatalities involving large trucks.▶ Rate of fatalities per 100 million VMT involving large trucks
Reduce the number and rate of persons injured in crashes involving large trucks.	<ul style="list-style-type: none">▶ Number of persons injured in crashes involving large trucks.▶ Rate of persons injured in crashes per 100 million VMT

Reduce the number and rate of large truck involvement in injury crashes	<ul style="list-style-type: none"> ▶ Number of large trucks involved in injury crashes ▶ Rate of large truck involvement in injury crashes per 100 million VMT
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Agency-wide Indicators and Performance Targets for FY 1999:

Indicator: The number of highway-related fatalities
1999 Target: Reduce the number of highway-related fatalities below CY 1996 baseline
2008 Target: Reduce the number of highway-related fatalities by 20 percent from the CY 1996 baseline
Baseline: 41,907 in CY 1996
Data: NHTSA Fatality Analysis Reporting System (FARS) using States' data
Comment: This performance measure reflects joint NHTSA, FHWA, and FRA efforts. The ten year goal will be achieved through long term efforts in close coordination with State and local authorities. The results of FY 1999 efforts may not immediately be apparent, as the impacts of many interventions appear over time. The one year goal is to flatten the recent rising trend in fatalities.

Indicator: The rate of highway-related fatalities per 100 million vehicle miles traveled (VMT)
1999 Target: 1.6 in CY 1999
Baseline: 1.7 in CY 1996
Data: NHTSA Fatality Analysis Reporting System (FARS) and FHWA Highway Performance Monitoring System using States' data
Comment: This performance measure reflects joint NHTSA, FHWA, and FRA efforts. FARS contains data on a census of fatal traffic crashes within 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must result in the death of an occupant of a vehicle or a non-motorist within 30 days of the crash.

Indicator: The number of highway-related injuries
1999 Target: Reduce the number of highway-related injuries below CY 1996 baseline
Baseline: 3,511,000 in CY 1996.
Data: NHTSA General Estimates System (GES) using States' data
Comment: This performance measure reflects joint NHTSA, FHWA, and FRA efforts. The ten year goal will be achieved through long term efforts in close coordination with State and local authorities. The results of FY 1999 efforts may not immediately be apparent, as the impacts of many interventions appear over time. The one year goal is to flatten the recent rising trend in injuries. GES data are obtained from a nationally representative probability sample selected from all police-reported crashes. Although various sources suggest that about half the motor vehicle crashes in the country are not reported to police, the majority of these unreported crashes involve only minor property damage and no significant personal injury. By restricting attention to police-reported crashes, the GES concentrates on those crashes of greatest concern to the highway safety community and the general public.

Indicator: The rate of highway-related injuries per 100 million vehicle miles traveled (VMT)
1999 Target: 131 in CY 1999
Baseline: 141 in CY 1996
Data: NHTSA General Estimates System (GES) and FHWA Highway Performance Monitoring System, both using States' data.
Comment: This performance measure reflects joint NHTSA, FHWA, and FRA efforts. GES data are obtained from a nationally representative probability sample selected from all police-reported crashes. Although various sources suggest that about half the motor vehicle crashes in the country are not reported to police, the majority of these unreported crashes involve only minor property damage and no significant personal injury. By restricting attention to police-reported crashes, the GES

concentrates on those crashes of greatest concern to the highway safety community and the general public.

HOW WE WILL ACHIEVE OUR SAFETY GOAL AND OBJECTIVES:

Safety on the highways is our highest priority--more than 40,000 Americans die, and 3 million are injured in motor vehicle crashes on our highways each year. More than 5,000 of the fatal crashes each year involve commercial motor vehicles. Crashes involving pedestrians and bicyclists result in 5,000 fatalities annually. As more people travel farther on the highways each year, without significant improvements in highway safety, the number of fatalities and injuries could also increase. In meeting this highway safety goal, the rate of fatalities would change from 1.1 to 0.7 fatalities per 100 million vehicle kilometers traveled (1.7 to 1.1 fatalities per 100 million vehicle-miles traveled). This would be a 35-percent decrease in the fatality rate. Ensuring that it is safe to travel on the highways is a guiding principle throughout all of our programs and activities. The FHWA promotes safety through technical assistance, research, training, data analysis, and public information as well as through compliance, education, and enforcement of national motor carrier safety requirements. Further, FHWA provides resources for infrastructure and system improvements to enhance safety such as highway-rail grade crossings. Improving highway safety also reduces the economic costs of transportation incidents. To meet its goal of continually improving highway safety, even as travel increases, FHWA's key strategies in highway safety include the following:

- ▶ **Promoting Safety Management Processes:** In partnership with the highway community, FHWA will facilitate implementation of comprehensive safety management processes with Federal, State, and local government and the commercial transportation industry.
- ▶ **Deploying Lifesaving Technologies on the Highways:** The FHWA will identify and promote deployment of safety technology with particular emphasis on technologies that address high priority areas, including run-off-road and pedestrian and bicycle incidents. Advancement of ITS technologies including intelligent cruise control, viewer enhancers, and on-board sensors, as discussed under the mobility goal, will also be a key part of the safety initiatives. The FHWA's longer term safety strategy is a technology-based systematic approach to enhance the safety of the roadway, vehicles, and users.
- ▶ **Focusing on Commercial Vehicle and Driver Safety:** The FHWA will (1) promote safe driving practices in the vicinity of large trucks; (2) build partnerships to improve motor carrier safety and performance of commercial motor vehicles and drivers; (3) target enforcement on the highest-risk motor carriers, and (4) identify and deploy new technologies to enhance the safety performance and productivity of the motor carrier industry.

- **Focusing on Human Behavior:** The FHWA will join all the modal administrations in such activities that **increase the use of seat belts, reduce the number of red light running crashes, and reduce the number of alcohol related crashes.** These activities will be accomplished with departmental leadership from the National Highway Traffic Safety Administration.

The FHWA programs designed to advance safety include the **Federal-aid Program, Federal Lands Program** and the **Motor Carrier Program.**

1. Federal-aid Program

The following **program activity, means and strategies, and annual performance goals and indicators** used to advance highway safety reflect the efforts of the Federal-aid Program including the intelligent transportation systems (ITS) Joint Program Office (JPO).

Related Program and Financing Schedule Program Activities:

<i>Federal -Aid Highways Program</i>	Estimated FY 1999 Obligations (millions)
Surface Transportation Program	5,608
National Highway System	4,257
Interstate Maintenance	4,271
Interstate System Reimbursement	969
Bridge Program	2,556
Flexible highway infrastructure safety	509
Integrated safety planning	50
Intelligent Transportation systems	96
ITS/ITI Incentive Deployment	100
FHWA research and technology	126
Woodrow Wilson Memorial Bridge	180
Administration	65
Research and technology	174
Minimum allocation	692

	FY 1999 Obligations (millions):
<i>State Infrastructure Banks</i>	150
<i>Trans. Infrastructure Credit Enhancement</i>	100
<i>Miscellaneous Trust Funds</i>	8
<i>Miscellaneous Highway Trust Funds</i>	
Highway Safety Improvement Demonstration	1
Climbing lane and safety demonstration projects	1

Federal-aid Program Means and Strategies:

Ongoing means and strategies: The Federal-aid Program promotes highway infrastructure safety standards. We work with our partners to provide funds and technical assistance for the improvement and development of safe and efficient highways, bridges, and related transportation facilities. Federal-aid interacts with Metropolitan Planning Organizations (MPOs), cities, local governments, Indian tribal governments, resource agencies, and other stakeholders. The State DOTs are our major partners and are critical to the success of the Federal-aid program.

Special Initiatives and Focus for FY 1999:

- ▶ Work with States, helping them conduct self-assessments and improve their safety management processes, including data support systems.
- ▶ Division Offices work with States to promote the implementation of countermeasures to prevent and mitigate the impacts of their State-targeted safety focus area in conjunction with the National roadmap for new technologies and methods in these areas.
- ▶ Expand technology transfer activities focused at prevention of run-off-road and pedestrian and bicycle crashes.
- ▶ Research to obtain safety improvements in traffic control devices and pedestrian accommodations, highway design tools, driver fatigue, and visibility.
- ▶ Initiate at least four cooperative agreements with industry and stakeholder groups to build Intelligent Vehicle Initiative test bed platforms for light, commercial, transit and specialty vehicles.
- ▶ Develop a joint partnership effort between Federal Lands Highway Office, Office of Highway Safety, National Highway Traffic Safety Administration, Bureau of Indian Affairs, and various Tribal governments to support Native American Injury Prevention Coalition Program to address very high number of fatality and injury incidents on Indian reservations.

Cross-cutting areas with other agencies: The Federal-aid Program works with (1) the National Science Foundation on a speed limit program and roadway infrastructure safety issues; (2) Naval Research Lab on sign retroreflectivity; (3) Department of Labor on work zone traffic control; (4) National Transportation Safety Board, on highway crash investigations, and (5) the Department of Interior's Bureau of Indian Affairs and Indian Health Service work on various traffic safety outreach initiatives. Specific activities include the implementation of a Tribal Safe Community Program and the Native American Injury Prevention Coalition Program.

Legislation and regulations:

- ▶ Revise the Manual for Uniform Traffic Control Devices

Federal-aid Program Indicators and Performance Targets for FY 1999:

Indicator: Number of agencies (States and Metropolitan Planning Organizations (MPOs)) that conduct safety management process self-assessment and implement appropriate improvement plan

1999 Target: TBD

Baseline: TBD

Data: FHWA

Comment: A safety management self-assessment process for States and MPOs will be developed in FY 1998. The safety management self-assessment process and its use at the State and MPO level will be promoted in FY 1999.

Indicator: Number of Communities with Safe Communities Programs

1999 Target: 600 communities

Baseline: 300 communities in CY 1996

Data: NHTSA

Comment: Safe Communities are injury prevention programs organized around the principle that local communities are best able to identify their unique safety problems, prioritize those problems, and recruit the appropriate community resources to solve the problems. It is an expansion of the Community/Corridor Traffic Safety Program. This performance measure reflects joint FHWA and NHTSA efforts.

Indicator: Number of agencies (States) adopting Road Safety Audit

1999 Target: 6 States

Baseline: 1 pilot State in CY 97

Data: FHWA

Comment: Road Safety Audits address the safe operation of a roadway and involve the formal examination of an existing or future road or traffic project by an independent team of trained specialists. The objective is to minimize the risk of a traffic crash and ensure that measures to eliminate or reduce identified roadway problems are fully considered. Fourteen States will pilot test road safety audits in 1998.

Indicator: Number and severity (fatalities and injuries) of single vehicle run-off-road crashes

1999 Target: Less than the CY96 baseline

Baseline: 948,000 crashes, 15,268 fatalities, 504,000 injuries in CY 1996

Data: NHTSA Fatality Reporting System (FARS) and General Estimates System (GES) using States' data

Comment: FARS contains data on a census of fatal traffic crashes within 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must result in the death of an occupant of a vehicle or non-motorists within 30 days of the crash. GES data are obtained from a nationally representative probability sample selected from all police-reported crashes. Run-off-road was selected as a national priority safety area since this type of crash accounts for about one-third of all fatalities.

Indicator: Number and severity (fatalities and injuries) of pedestrian and bicycle crashes

1999 Target: Less than the CY96 baseline

Baseline: 154,000 crashes, 6,173 fatalities, 141,000 injuries in CY 1996

Data: NHTSA Fatality Reporting System (FARS) and General Estimates System (GES) using States' data

Comment: FARS contains data on a census of fatal traffic crashes within 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must result in the death of an occupant of a vehicle or non-motorists within 30 days of the crash. GES data are obtained from a nationally representative probability sample selected from all police-reported crashes. Pedestrian and bicycle were selected as a national priority safety area since this type of crash accounts for 15 percent of all fatalities.

2. Federal Lands Program

The following **program activity, and means and strategies** used to advance highway safety reflect the efforts of the Federal Lands Program.

Related Program and Financing Schedule Program Activities:

<i>Federal -Aid Highways Program</i>	Estimated FY 1999 Obligations (millions)
Federal Lands Highways	512

Federal Lands Program Means and Strategies:

Ongoing means and strategies: While most of the Federal Lands Highway (FLH) Program is directed at improving the infrastructure under the mobility goal, the following FLH **initiatives** advance highway safety efforts.

Special Initiatives and Focus for FY 1999:

- ▶ In partnership with the Office of Highway Safety, National Highway Traffic Safety Administration, Bureau of Indian Affairs, and various Tribal governments, the FLH will develop strategies to address high severe injury crashes on roads in Indian country.
- ▶ Update 23 U.S.C. 402 Safety Agreements with Federal Land Managing Agencies.
- ▶ Identify public roads (23 U.S.C. definition) under jurisdiction of Federal Land Managing Agencies.

Cross-cutting areas with other agencies: The Federal Lands Highway (FLH) Program works with the Department of Interior's Bureau of Indian Affairs and Indian Health Service on various traffic safety outreach initiatives. The FLH Program is working with various Federal Land Managing Agencies to identify public roads meeting 23 USC definition.

FLH Program Indicators and Performance Targets:

The Federal Lands Program is in the process of developing Performance Goals, Indicators and FY 1999 Performance Targets for this FHWA goal area. They will be included in the FY 2000 FHWA Performance Plan and in the report on the FY 1999 FHWA Performance Plan.

3. National Motor Carrier Safety Program

The following **program activities, means and strategies, and annual performance goals and indicators** used to advance highway safety by promoting truck and bus safety, and creating a crash-free environment reflect the efforts of the Motor Carrier Program.

Related Program and Financing Schedule Program Activities:

<i>National Motor Carrier Safety Program</i>	Estimated FY 1999 Obligations (millions)
	100

Office of Motor Carriers Program Means and Strategies:

Ongoing means and strategies: The Motor Carrier Program under the Motor Carrier Safety Assistance Program works together with States to develop and implement programs to increase commercial motor vehicle and driver safety. Information on inspections and accidents are collected by States and used to track motor carrier performance, identify problems, and improve safety. The Motor Carrier Program is also focusing heavily on information and analysis to improve program and policy decisions. These information systems include the Motor Carrier Management Information System (MCMIS), SAFTYNET, Commercial Driver License Information System (CDLIS), SAFER, and Field Data Systems. The information systems are used to make maximum use of safety performance data to identify those carriers and drivers which appear to be unsafe.

Special Initiatives and Focus for FY 1999:

- ▶ Provide funding to border States to address the increased international traffic since implementation of the North American Free Trade Agreement (NAFTA). The funding resources will provide on-going operational support for safety and enforcement programs in the border States (specifically southern border States).
- ▶ Provide State training and administration to over 2,000 State enforcement officers to ensure uniform inspections, skills in advanced technologies, data collection and communications.
- ▶ Develop data bases for driver traffic citations, crash factors, and high frequency crash locations.
- ▶ Convene second Truck and Bus Safety Summit.
- ▶ Ensure that States prepare FY 1999 performance-based Commercial Vehicle Safety Plans.
- ▶ Provide technical support for Commercial Vehicle Information System Networks in varying stages of deployment.
- ▶ Upgrade Intelligent Transportation Systems/Commercial Vehicle Operations international border operational tests and automate new border crossing sites.

Cross-cutting areas with other agencies:

Study Of Effects Of Work And Rest Schedules On Driver Performance -- The hours-of-service (HOS) regulations include limits on driving based upon 7- or 8-day duty cycles. Many motor carriers and drivers have expressed a desire for the duty cycle to be “reset” after a certain amount of off-duty time. However, a literature review found no sources of data on rest and recovery cycles, nor on partial sleep deprivation and prediction of subsequent performance. This study will provide important information concerning potential use of personal monitors to prevent fatigue and loss-of-alertness through application of a performance-based assessment. Drivers and motor carriers could gain benefits unavailable under the current prescriptive regulatory system. Drivers would be able to better gauge their present and projected alertness and performance

levels, and be able to alter their activity (increase main sleep or take naps) to improve alertness and projected performance. Motor carrier personnel would also be better informed about the drivers' alertness and performance status to optimize both productivity and safety. This project has provided unprecedented opportunities for cross-modal (FHWA, FAA, FRA) and cross-agency (DOT, DOD, NIH) project coordination and resource sharing.

International Border Clearance Program -- The FHWA is working with the Treasury Department (Customs Service) and the Justice Department (Immigration and Naturalization Service) to design a comprehensive international border clearance program. The FHWA has initiated Field Operational Tests at border crossings in Nogales, AZ; Otay Mesa, CA; El Paso, TX; Laredo, TX; Detroit, MI, and Buffalo, NY, which utilize ITS technology to facilitate safety and trade. Projects at Blaine, WA and Sweetgrass, MT, are also included in this program.

Motor Carrier Program Indicators and Performance Targets for FY 1999:

Indicator:	Number of fatalities involving large trucks.
1999 Target:	Reduce the number of fatalities involving large trucks below the CY 96 baseline
<u>Baseline:</u>	5,126 fatalities in CY 1996
<u>Data:</u>	NHTSA Fatalities Analysis Reporting System (FARS)
<u>Comment:</u>	This performance measure is part of the larger ten-year goal that reflects joint NHTSA, FHWA, and FRA efforts. OMC is working with the Federal Lands and Federal-aid offices to achieve the FHWA Strategic Objective. The ten-year goal will be achieved through long-term efforts in close coordination with partners, customers, States, and local authorities. The results of FY 1999 efforts may not immediately be apparent, as the impacts of many interventions appear over time. Year-to-year fluctuations are not uncommon when the measures are based on small numbers.
Indicator:	Rate of fatalities per 100 million VMT involving large trucks.
1999 Target:	Reduce the rate below the CY 96 baseline
<u>Baseline:</u>	2.8 fatalities for 100 million VMT in CY 1996
<u>Data:</u>	NHTSA Fatalities Analysis Reporting System (FARS) using Fatalities Per 100 Million VMT
<u>Comment:</u>	Comments for the previous indicator apply. This measure tracks the number of fatalities that occur in large truck crashes per vehicle miles traveled. By tracking the rate, the influence of increased truck travel on their exposure to crashes is taken into account.
Indicator:	Number of persons injured in crashes involving large trucks
1999 Target:	Reduce the number of persons in crashes below the CY 1996 baseline
<u>Baseline:</u>	130,000 injuries in CY 1996
<u>Data:</u>	NHTSA General Estimates System (GES)
<u>Comment:</u>	This performance measure is part of the larger ten-year goal that reflects joint NHTSA, FHWA, and FRA efforts. The ten-year goal will be achieved through long-term efforts in close coordination with State and local authorities. The results of FY 1999 efforts may not immediately be apparent, as the impacts of many interventions appear over time. Year-to-year fluctuations may not be discernible if the sample variation of the GES estimates is larger than the changes.
Indicator:	Rate of persons injured in crashes per 100 million VMT
1999 Target:	Reduce the rate below the CY 1996 baseline
<u>Baseline:</u>	71 per 100 million VMT in 1996
<u>Data:</u>	Highway Performance Monitoring System using Injured Persons per 100 Million VMT NHTSA General Estimates System (GES) using Injured Persons per 100 million TVMT

Indicator: **Number of large trucks involved in injury crashes**
1999 Target: **Reduce the number of large trucks below the CY 1996 baseline**
Baseline: 94,000 trucks
Data: NHTSA General Estimates System (GES)
Comment: GES data are obtained from a nationally representative sample of police-reported crashes of all severities and involving all types of vehicles. Large trucks are defined in GES as any vehicle over 10,000 gross vehicle weight rating. Year-to-year fluctuations may not be discernible if the sample variation of the GES estimates is larger than the changes.

Indicator: **Rate of large truck involvement in injury crashes per 100 million VMT**
1999 Target: **Reduce the rate of large trucks involvement below the 1996 baseline**
Baseline: 51 trucks per VMT
Data: Highway Performance Monitoring System using Injury Crashes per 100 millions VMT
 NHTSA General Estimates System (GES) using Injury Crashes Per 100 Million TVMT
Comment: This measure tracks the number of injuries that occur in large truck crashes per vehicle miles traveled. By tracking the rate, the influence of increased truck travel on their exposure to crashes is taken into account. Year-to-year fluctuations may not be discernible if the sample variation of the GES estimates is larger than the changes.

FHWA STRATEGIC GOAL: PRODUCTIVITY

Continuously improve the economic efficiency of the Nation's transportation system to enhance America's position in the global economy.

OBJECTIVES:

The FHWA has identified the following objectives to move the agency toward achieving its strategic goal of productivity over the next ten years:

1. Improve the economic efficiency of highway transportation.
2. Improve the return on investment of the highway system.

Objective 2 under the Mobility Goal, *Improve the operation of the highway system and intermodal linkages to increase transportation access for all people and commodities*, also contributes to achieving this Strategic Goal.

PERFORMANCE GOALS AND INDICATORS:

Progress in achieving the Agency's Productivity Objectives will be measured at the end of FY 1999 against the following performance goals:

Objective: Improve the economic efficiency of highway transportation.

Performance Goal	Indicator
Reduce delays on Federal-aid highways.	Hours of delay/1610 vehicle kilometers (1000 vehicle-miles) traveled.
Reduce highway-related delays on NHS border crossings.	Hours of delay/1000 vehicles processed at NHS border crossings.

Objective: Improve the return on investment of the highway system.

Performance Goal	Indicator
Reduce the life cycle costs per lane kilometer (lane mile) of new and reconstructed highways.	<ul style="list-style-type: none">▶ Life cycle cost per lane kilometer (lane mile) of new highways.▶ Life cycle cost per lane kilometer (lane mile) of reconstructed highways.

HOW WE WILL ACHIEVE OUR PRODUCTIVITY GOAL AND OBJECTIVES:

Minimizing the cost to build, maintain, operate, and use the National Highway System directly supports local, regional, and national economic growth and competitiveness. The Highway System provides the majority of passenger travel and 91 percent of the person-distance (miles) traveled are in privately-owned vehicles. Trucks move nearly three quarters of the value, one half of the weight, and nearly one quarter of the metric ton-kilometer (ton-miles) of all freight shipments in the United States and its territories. The FHWA programs to increase mobility through enhanced infrastructure, technology, and operations also support economic performance goals.

We will help reduce the economic costs of providing and using the highways by focusing on the following strategies:

- ▶ **Highway System Operating Efficiency:** The FHWA initiatives in incident and congestion management systems will assist the States in stabilizing highway congestion and reducing delays caused by crashes, breakdowns, and construction.
- ▶ **Border Crossing Efficiency:** The FHWA will work with international, Federal, State agencies and others to remove institutional, technological, and physical transportation barriers to foreign trade at our border crossings.
- ▶ **Highway System Production Efficiency:** The FHWA will promote increasing the return on investment of highway dollars through research and technology transfer to significantly reduce the life cycle costs of new and reconstructed highways.
- ▶ **Federal-aid Efficiency:** To maximize the rate of return resulting from Federal transportation investment, it is essential that the costs associated with delivering and accepting Federal-aid be minimized. The FHWA will continue its efforts at regulatory reform and will develop streamlined methods and mechanisms for delivering Federal assistance while maintaining all necessary safeguards of Federal law.

HIGHWAY TRANSPORTATION'S CONTRIBUTION TO THE NATIONAL ECONOMY

Like canals and railroads in the last century, the advent of the modern highway system has ushered in an unprecedented era of economic growth, industrial productivity and employment opportunity. Bolstered by recent studies, the FHWA Strategic Plan acknowledges this linkage between highway investment and the economic performance of the private sector. It commits the FHWA to actions that *improve the economic efficiency of highway transportation and increase the rate of return on the highway system*. These are measurable ways that the FHWA affects the use and provision of transportation facilities, although they are not reflective of the total contribution of highways to the economy. The FHWA is sponsoring a conference that will address the benchmarks by which the FHWA can measure its contributions to the productive performance of the highway system. It will draw upon the current field of knowledge and improve the FHWA's existing methodologies for measuring productivity performance.

A partial measure of the economic impact of Federal-aid expenditures is obtained from the FHWA Direct Employment Estimation Model. This estimates that \$1 billion in highway construction supports approximately 42,000 full-time jobs--27,500 positions in highway construction and supplying industries, and an additional 14,500 jobs that are generated when construction workers, contractors and supplying industries spend their profits and wages.

Macroeconomic measures of the commercial benefits of highway investment are provided by Dr. M. Ishaq Nadiri from New York University. Using advanced econometric techniques, Dr. Nadiri estimates that highway investment contributed 18 percent of total factor productivity growth from 1980 to 1991. The rate of return on total highway investment during this period averaged almost 15 percent annually. Previous studies by Dr. Nadiri indicate that returns on "non-local" roads are approximately 5 to 7 percentage points greater than the total highway system, demonstrating the high rate of return on Federal highway investment.

The key to continued progress lies in constantly increasing productivity in the use and provision of transportation facilities. One of the Objectives in the FHWA Strategic Plan is to *improve the economic efficiency of highway transportation* by reducing costs to road users. This goal can be advanced by reducing delays on Federal-aid highways, where congestion wastes fuel and time for domestic travelers, and at border crossings, where delays are often compounded by insufficient infrastructure and lengthy processing arrangements. In an economy that increasingly demands speed and reliability, reducing delays can have a dramatic effect on national productivity.

FHWA PROGRAMS THAT INFLUENCE PRODUCTIVITY

FHWA programs designed to advance productivity include the **Federal-aid Program** and the **Federal Lands Program**.

1. Federal-aid Program

The following **program activity, means and strategies, and annual performance goals and indicators** used to advance highway productivity reflect the efforts of the Federal-aid Program including the intelligent transportation systems (ITS) Joint Program Office (JPO).

Related Program and Financing Schedule Program Activities:

<i>Federal -Aid Highways Program</i>	Estimated FY 1999 Obligations (millions)
Surface Transportation Program	5608
National Highway System	4257
Interstate Maintenance	4271
Interstate System Reimbursement	969
Bridge Program	2556
Congestion Mitigation/air quality improvement	1260
Flexible highway infrastructure safety	509
Integrated safety fund	50
Intelligent Transportation Systems	96
Intelligent Transportation Incentive Deployment	100
FHWA research and technology	126
Border Gateway Crossing Pilot Program	90
Appalachian Highways	290
Administration	65
Research and Technology	174
Other Programs	104
Minimum Allocation	692
<i>State Infrastructure Banks</i>	150
<i>Transp Infrastructure Credit Enhancement</i>	100
<i>Miscellaneous Trust Funds</i>	8
<i>Miscellaneous Highway Trust Funds</i>	
Highway Projects	26

Federal-aid Program Means and Strategies:

Ongoing means and strategies: The Federal-aid Program partners with State and other authorities to promote infrastructure development and improvement through direct funding, grants and technical assistance. The Joint Program Office coordinates work on Intelligent Transportation Systems (ITS) and other cross-modal initiatives designed to reduce highway congestion and improve safety.

Special Initiatives and Focus for FY 1999:

- ▶ Initiate the Border Gateway Crossing Pilot Program, funded at \$90M. The pilot program will develop and implement coordinated, comprehensive border crossing plans and programs, thus promoting the efficient and safe use of border crossings within defined international gateways.
- ▶ Work with State and local agencies and other stakeholders to implement improvements to NHS intermodal connectors.

- ▶ Establish an ITS Coordination team in every State.
- ▶ Conduct case studies with ten States and the two major paving industry associations on Life-Cycle Cost Analysis in pavement design to nationally showcase how probabilistic approaches using risk analysis can enhance LCCA and other engineering and management analyses.
- ▶ Implement strategies that will improve the integration of ITS technologies across jurisdictional and modal boundaries.
- ▶ Complete testing of motor carrier safety information and exchange partnerships at four border crossing sites in cooperation with the Department of Treasury.
- ▶ Develop best practices for pavement asset management and provide training for State and local partners.

Cross-cutting areas with other agencies - The International Border Clearance Planning and Deployment Committee which includes participation by the Joint Program Office and the Office of Motor Carriers is ensuring that all government-run border crossing projects and ITS projects are compatible with one another. This committee includes representatives from the U.S. Customs Bureau, the U.S. Bureau of Immigration and Naturalization, and the governments of Canada and Mexico. Six testing centers along the Mexican and Canadian borders evaluate ITS technology in processing people and goods at international crossings. The FHWA is also working with the U.S. Department of State and the Mexican government to complete a bi-national study of trade flows and planned infrastructure improvements along the U.S./Mexico border.

Federal-aid Program Indicators and Performance Targets for FY 1999:

Indicator: Hours of delay per 1610 vehicle kilometers (1000 vehicle-miles) traveled on Federal-aid highways.

1999 Target: A reduction in FY 1999. Baseline and target to be developed in FY 1998.

Baseline: TBD

Data: Highway Performance Monitoring System (HPMS)

Comment: Baseline data for this indicator, developed from HPMS data, will be available by April 1998. The Condition and Performance Report has traditionally reported volume/service-flow (V/SF) as the single indicator of system performance. V/SF is limited because it only addresses peak-hour and disregards total hours of congestion. As congestion increases, V/SF tends to stabilize, while hours of congestion continue to increase, leading to misleading conclusions. For 1997, the C&P Report augments V/SF with daily vehicle miles-of-travel per lane-mile (DVMT/L-M), a better measure of overall density of highway use. This interim step allows us to transition to a true measure of overall vehicle delay. Delay is considered the single most informative measure of congestion, impacting user costs, emissions, accidents, and productivity measures.

Indicator: Hours of delay/1000 vehicles processed at NHS border crossings

1999 Target: Baseline and target to be developed in FY 1998

Baseline: TBD

Data: TBD

Indicator: Life cycle costs per lane kilometer (lane mile) of new highways

1999 Target: Baseline and target to be developed in FY 1998

Baseline: TBD

Data: TBD
Comment: Life-cycle costs are contingent upon construction activity, technological improvements, the quality of materials, and other factors. As part of its FY 1998 research program, the Federal Highway Administration is supporting case studies with ten states and two major paving associations that will advance FHWA's understanding of Life-Cycle Cost Analysis (LCCA). The FHWA Offices of Engineering and Policy Development will use these studies to develop baselines and targets for the Performance Plan.

Indicator: Life cycle costs per lane kilometer (lane mile) of reconstructed highways

1999 Target: Baseline and target to be developed in FY 1998

Baseline: TBD

Data: TBD

Comment: Life-cycle costs are contingent upon construction activity, technological improvements, the quality of materials, and other factors. As part of its FY 1998 research program, the Federal Highway Administration is supporting case studies with ten states and two major paving associations that will advance FHWA's understanding of Life-Cycle Cost Analysis (LCCA). The FHWA Offices of Engineering and Policy Development will use these studies to develop baselines and targets for the Performance Plan.

2. Federal Lands Highway (FLH) Program

The following **program activity, means and strategies** used to advance productivity reflect the efforts of the **Federal Lands Highway (FLH) Program**.

Related Program and Financing Schedule Program Activities:

<i>Federal -Aid Highways Account</i>	Estimated FY 1999 Obligations (millions)
Federal lands highways	512

FLH Program Means and Strategies:

Ongoing means and strategies: While most of the Federal Lands Highway (FLH) Program is directed at improving the infrastructure under the mobility goal, the following **initiatives** advance highway productivity efforts.

Special Initiatives and Focus for FY 1999:

- ▶ Develop alternative investment strategies to obtain maximum infrastructure conditions within available funds.
- ▶ Continue to support Tribal government to government relationships in accordance with President's Memorandum, Government to Government Relationships, April 1994.
- ▶ Continue to increase provisions of Section 7b of Indian Self Determination and Education Assistance Act and Buy Indian Act of 1910.

FLH Program Indicators and Performance Targets for FY 1999:

The Federal Lands Program is in the process of developing Performance Goals, Indicators and FY 1999 Performance Targets for this FHWA goal area. They will be included in the FY 2000 FHWA Performance Plan and in the report on the FY 1999 FHWA Performance Plan.

FHWA STRATEGIC GOAL: HUMAN AND NATURAL ENVIRONMENT

Protect and enhance the natural environment and communities affected by highway transportation.

OBJECTIVES:

The FHWA has identified the following objectives to move the agency toward achieving its strategic goal of human and natural environment over the next ten years:

- 1. Enhance community and social benefits of highway transportation.**
- 2. Improve the quality of the natural environment by reducing highway-related pollution and by protecting and enhancing ecosystems.**

PERFORMANCE GOALS AND INDICATORS:

Progress in achieving the Agency's Human and Natural Environment Objectives will be measured at the end of FY 1999 against the following performance goals:

Objective: Enhance community and social benefits of highway transportation.

Performance Goal	Indicator
Increase public satisfaction with highway systems and highway projects as a beneficial part of their community.	► EPA rating of FHWA Environmental Impact Statements (EIS).

Objective: Improve the quality of the natural environment by reducing highway-related pollution and by protecting and enhancing ecosystems.

Performance Goal	Indicator
Improve air quality	► Mobile source emissions in short tons ► Percent of non-attainment and maintenance areas meeting their mobile source emissions budget goals
Protect and restore ecosystem values and functions affected by Federal-aid funded projects.	► Ratio of wetland replacement resulting from Federal-aid highway projects.

HOW WE WILL ACHIEVE OUR HUMAN AND NATURAL ENVIRONMENT GOAL AND OBJECTIVES:

Highways and transportation facilities are major contributors to the quality of life in communities and can be a major factor affecting the quality of the natural environment, especially air quality. Through initiatives in planning, environment, analytical models, new technologies, and research, we will work with our partners to ensure that highway facilities balance local, regional, and national concerns with the natural environment and add value to the community. The major focus of FHWA's initiatives will be the following:

- ▶ **Enhancing Communities Through Highway Transportation:** The FHWA will foster community and regional level transportation solutions through enhancements in urban and rural community planning. We will develop and share tools for State, local, Federal land management agencies, and tribal government planners to effectively incorporate environmental justice and the preservation of scenic, historic, natural, and community resources, as well as traffic safety into transportation plans.
- ▶ **Sustaining the Quality of the Natural Environment:** Through research, new technologies, and analytical models, FHWA will promote the construction, maintenance, and use of highways that are compatible with the national environmental objectives. In partnership with our stakeholders, we will support the development of environmental analytical models to assist decisionmakers.

FHWA programs designed to advance the human and natural environment include the **Federal-aid Program** and the **Federal Lands Program**.

1. Federal-aid Program

The following **program activity, means and strategies, and annual performance goals and indicators** used to advance human and natural environment reflect the efforts of the Federal-aid Program including the intelligent transportation systems (ITS) Joint Program Office (JPO).

Related Program and Financing Schedule Program Activities:

<i>Federal -Aid Highways Program</i>	Estimated FY 1999 Obligations (millions)
Surface Transportation Program	5608
National Highway System	4257
Interstate Maintenance	4271
Interstate System Reimbursement	969

	FY 1999 Obligations (millions):
Bridge Program	2556
Congestion Mitigation/air quality improvement	1260
Flexible highway infrastructure safety	509
Integrated safety fund	50
Intelligent Transportation Systems	96
Intelligent Transportation Incentive Deployment	100
FHWA research and technology	126
Administration	65
Research and Technology	174
Minimum Allocation	692
<i>State Infrastructure Banks</i>	150
<i>Transp Infrastructure Credit Enhancement</i>	100
<i>Miscellaneous Trust Funds</i>	8

Federal-aid Program Means and Strategies:

Ongoing means and strategies: The Federal-aid Program partners with States, Metropolitan Planning Organizations, urban centers, and communities to strengthen the links between highways and communities as reflected in sustainable transportation and land use decisions, improved options for transportation, and reduced environmental impacts. The Federal-aid Program also (1) implements and oversees the Congestion Mitigation and Air Quality Improvement (CMAQ) Program, which targets transportation investment to reduce mobile source emissions and reduce congestion, (2) implements and oversees the Surface Transportation Enhancements program which fosters alternative transportation options, promotes more livable communities, and other environmentally beneficial programs, (3) works to mitigate the environmental impacts of highway siting and improve wetland habitats, and (4) supports research on transportation and air quality analysis, develops/disseminates information on effective approaches to improve air quality, and evaluates emissions impacts and cost-effectiveness of transportation strategies.

Special Initiatives and Focus for FY 1999:

- ▶ In partnership with the State DOTs, facilitate an enhanced and more efficient environmental decision making process which includes improving the quality of the National Environmental Policy Act (NEPA) process and documents by sharing best practices, conducting technical specialist workshops, providing consultant/local training opportunities, and creating a technical specialist clearinghouse.
- ▶ Complete the evaluation of the three pilot public education campaigns on transportation and air quality conducted in 1998 and initiate a full scale roll-out of the campaign in an additional 5 sites.

- ▶ Monitor nationwide implementation of the conformity regulation and address conformity issues in a timely fashion to assist State and local efforts to meet conformity requirements and clean air goals.
- ▶ Conduct preliminary research on potential impacts of the revised National Ambient Air Quality Standards on mobile source emissions.
- ▶ Prepare report and guidance on current methods for assessment and mitigation of wetland and other ecosystem impacts through pilot projects and/or ecosystem restoration activities.
- ▶ Implement a pilot research program with the Washington State DOT to establish a wetland mitigation planning and implementation program on a watershed basis.
- ▶ Support R&D to continue the development of new wetland evaluation technique, the Hydrogeomorphic or HGM assessment method in cooperation with U.S. Environmental Protection Agency and the U.S. Corps of Engineers.

Cross-cutting areas with other agencies - The Federal-aid Program will continue to work closely with EPA to ensure that the mobile source emission goal is met. DOT efforts complement the government-wide goals for achieving National Ambient Air Quality Standards. These cooperative efforts include the launching of the Transportation and Air Quality public education initiative which is jointly funded by FHWA and EPA; continuing to implement the transportation conformity regulations and the CMAQ Program; and conducting research on various strategies that target the reduction of mobile source emissions and fostering sustainable transportation. The Federal-aid Program also coordinates wetlands programs and research initiatives with the Environmental Protection Agency (EPA) and the Departments of Interior, Army, and Agriculture.

Federal-aid Program Indicators and Performance Targets for FY 1999:

Indicator: EPA rating of FHWA Environmental Impact Statements (EIS)
1999 Target: 30% of EISs are LO
Baseline: 24% of EISs are LO (based on 1993-1996 data)
Data: Environmental Protection Agency EIS database
Comment: EPA rates EISs according to the acceptability of the environmental impacts and the adequacy of the EIS document. Acceptability is denoted by a letter rating of LO (Lack of Objection), EC (Environmental Concern), EO (Environmental Objection), and EU (Environmentally Unacceptable).

Indicator: Mobile source emissions in short tons.
1999 Target: An annual reduction of 1% in transportation related emissions from the 1996 baseline, for a total of 1.9 million short tons by FY 1999.
Baseline: 65.9 million short tons of mobile source emissions in 1996. This figure is the sum of mobile source emissions of carbon monoxide, hydrocarbons, nitrogen oxides, and PM-10 as reported in the latest Trends Report (January, 1998)
Data: National Air Quality and Emissions Trends Report, published annually by EPA (Trends Report).
Comment: Revised National Ambient Air Quality Standards will begin to phase in during FY2000, so the goal may need to be modified. This indicator does not address greenhouse gases directly. Variation is anticipated in reaching a 1% annual reduction goal, and progress will be assessed in the annual performance report when emissions data becomes available from EPA for the intermediate years. The emissions data is reported in a 2-year time lag. Higher annual emission targets are projected for years beyond 1999 as new technologies become available.

Indicator: Percent of non-attainment and maintenance areas meeting their mobile source emissions budget goals
1999 Target: 98% of Ozone non-attainment and maintenance areas; 96% of CO non-attainment and maintenance areas; 86% of PM non-attainment and maintenance areas
Baseline: FY 97: 98% of Ozone non-attainment and maintenance areas; 96% of CO non-attainment and maintenance areas; 86% of PM non-attainment and maintenance areas
Data: Regional FHWA Offices

Comment: Due to the lack of historical data on non-attainment and maintenance areas meeting their mobile source emissions budget goals for Ozone, CO, and PM (only 2 years' of data is available), the 1999 target is set to at least maintain the 1997 level of success. However, our ability for meeting these targets is dependent upon the level of conformity activities, and the impending impacts of the revised National Ambient Air Quality Standards on conformity.

Indicator: **Ratio of wetland replacement resulting from Federal-aid highway projects.**

1999 Target: **1.5 acres to 1**

Baseline: TBD - No net loss (at least 1 to 1 replacement) in recent years

Data: Regional FHWA offices

Comment: This measure captures the effectiveness of replacing wetlands areas coincident with Federal-aid projects. It measures progress toward our objective of enhancing the environment through careful planning for highway projects and thoughtful implementation of effective mitigation for unavoidable impacts.

2. Federal Lands Highway (FLH) Program

The following **program activity, means and strategies** used to advance human and natural environment reflect the efforts of the **Federal Lands Highway (FLH) Program**.

Related Program and Financing Schedule Program Activities:

<i>Federal-Aid Highways Program</i>	Estimated FY 1999 Obligations (millions)
Federal lands highways	512

FLH Program Means and Strategies:

Ongoing means and strategies: While most of the Federal Lands Highway (FLH) Program is directed at improving the infrastructure under the mobility goal, the following **initiatives** advance highway environment efforts.

Special Initiatives and Focus for FY 1999:

- Update Federal Lands Highway (FLH) Project Development and Design Manual Chapter 3 on FLH Environmental Procedures.

- ▶ Continue to design projects compatible with Federal Land Management Agency's resource management and land use plans.

FLH Program Indicators and Performance Targets:

The Federal Lands Program is in the process of developing Performance Goals, Indicators and FY 1999 Performance Targets for this FHWA goal area. They will be included in the FY 2000 FHWA Performance Plan and in the report on the FY 1999 FHWA Performance Plan.

FHWA STRATEGIC GOAL: NATIONAL SECURITY

Improve the Nation's national defense mobility.

OBJECTIVE:

FHWA has identified the following objective to move the agency toward achieving its strategic goal of national security over the next ten years:

1. **Improve the capacity and operation of the highway system to support mobilization**

PERFORMANCE GOALS AND INDICATORS:

Progress in achieving the Agency's National Security Objectives will be measured at the end of FY 1999 against the following performance goals:

Performance Goal	Indicator
Increase the level of satisfaction of Department of Defense (DOD) partners with highway transportation services to support mobilization initiatives.	Index of DOD satisfaction with defense mobility planning activities

HOW WE WILL ACHIEVE OUR NATIONAL SECURITY GOAL AND OBJECTIVE:

Highways are critical links for mobilizing and deploying military forces from U.S. bases. The FHWA facilitates effective coordination among Federal, State, and local agencies to ensure that the highway infrastructure, communications, and technology fully support national defense strategies. We will continually improve our National security initiatives through the following:

- ▶ **Enhancing Mobilization Planning:** The FHWA will facilitate coordination with the DOD and State and local highway agencies to support priority defense mobilization and deployment plans through infrastructure, communications, and highway operations information systems.
- ▶ **Improving the operation of key highway and bridges of interest for national military mobilization:** The FHWA will work with the Military Traffic Management Command (MTMC) to improve routes on the Strategic Highway Corridor Network (STRAHNET) and STRAHNET connectors.

The Federal-aid Program supports accomplishment of this strategic goal.

1. Federal-aid Program

The following **program activity, means and strategies, and annual performance goals and indicators** used to advance national security reflect the efforts of the Federal-aid Program.

Related Program and Financing Schedule Program Activities:

<i>Federal -Aid Highways Program</i>	Estimated FY 1999 Obligations (millions)	
Surface Transportation Program	5608	
National Highway System	4257	
Interstate Maintenance	4271	
Interstate System Reimbursement	969	
Bridge Program	2556	
Flexible highway infrastructure safety	509	
Integrated safety fund	50	
Intelligent Transportation Systems	96	
Intelligent Transportation Incentive Deployment		100
FHWA research and technology	126	
Administration	65	
Research and Technology	174	
Minimum Allocation	692	
<i>State Infrastructure Banks</i>	150	
<i>Transp Infrastructure Credit Enhancement</i>	100	
<i>Miscellaneous Trust Funds</i>	8	

Federal-aid Program Means and Strategies:

Ongoing means and strategies: The Federal-aid Program works with the Department of Defense Military Traffic Management Command (MTMC) to improve routes on the Strategic Highway Corridor Network (STRAHNET) and STRAHNET connectors.

Special Initiatives and Focus for FY 1999

- ▶ Complete updates of State emergency Highway Traffic Regulations in 25 States.
- ▶ Equip all FHWA field offices with modernized emergency communications equipment.

Cross-cutting areas with other agencies: The FHWA and the MTMC conduct periodic meetings to discuss the progress made in the implementation of the MTMC Coordination Action Plan. Annual reports will be prepared detailing the progress made in accomplishing the tasks described in the plan.

Federal-aid Program Indicators and Performance Targets for FY 1999:

<u>Indicator:</u>	Index of DOD satisfaction with defense mobility planning activities.
<u>1999 Target:</u>	Baseline and target to be developed in FY 1998
<u>Baseline:</u>	TBD
<u>Data:</u>	FHWA survey
<u>Comment:</u>	The FHWA and the Military Traffic Management Command (MTMC) agreed to address a number of issues which were mutually determined to be of highest priority in national defense mobility coordination. The measure of success for this goal is appropriately their level of satisfaction with the resolution of these issues.

CORPORATE MANAGEMENT STRATEGIES

The Quality Journey has been adopted by FHWA to focus our efforts on delivery of quality products and services to our partners and customers, ultimately, to the American public. The "Journey" strives for continuous improvement in performance and products by analyzing Agency performance in seven universally accepted criteria, or "Cornerstones," that comprise the Malcolm Baldrige and Presidential Quality Award criteria. FHWA's Corporate Management Strategies (CMS), which are internal guidance designed to enable us to effectively and efficiently achieve our strategic goals, are based on these seven cornerstones. Our CMS, and the FHWA's 1998 National Strategic Plan, constitute an agency road map for achieving organizational excellence. Reflecting our commitment to alignment with the DOT Strategic Plan, FHWA's CMS encompass and support the U.S. DOT's corporate management strategies.

Continually improving FHWA management strategies for customer service and quality product delivery, as guided by the seven Quality Cornerstones, is the foundation for accomplishing our strategic goals. This section of the Performance Plan includes for each Cornerstone a "Key FY 1999 Performance Goal" which establishes the broad, often multi-year, strategic improvement objective for that Corporate Management Strategy. The "Major Initiatives" for each Cornerstone are those specific actions which will be undertaken by FHWA during FY 1999 as part of a long term strategy to achieve that improvement.

Measurement will be a key aspect of carrying out the FHWA Corporate Management Strategies. One measure of progress will be the successful completion of each of the initiatives. In addition, FHWA will measure and track its progress on the Quality Journey over time through the use of several key measures which are described at the end of this section. The integrated, inter-related nature of the Cornerstones supports the use of measures which are broad and cross-cutting, enabling FHWA to gauge progress over time as initiatives to strengthen quality management practices are completed. One important performance measure will be the results obtained from a systematic self-assessment using the President's Quality Award Criteria.

The FHWA Leadership Team is responsible for leading the FHWA Quality Journey and for carrying out its Corporate Management Strategies. To maintain focus on improvement and to facilitate monitoring and tracking of progress, three members of the Leadership Team are designated as Champions for each Cornerstone. This approach will foster mutual responsibility within the Leadership Team and will encourage effective organizational learning across the agency.

LEADERSHIP: FHWA leaders set the vision and direction, ensure accountability, and provide the resources to ensure that we deliver the products and services to our customers in an excellent and timely manner. FHWA's leaders, at all levels of the organization will be personally involved in adopting and sustaining the Quality Journey and the Cornerstones. The Quality Journey Cornerstones must become the guide for leadership in providing the direction and resources necessary to deliver a quality highway and transportation system. In this way, FHWA's Vision, Mission, Values, and the Quality Journey will become an integral part of the organizational culture.

Key FY 1999 Performance Goal: *FHWA's Vision, Mission, Values, Guiding Principles and the Quality Journey principles are an integral part of the organizational culture.*

Major Initiative
FHWA Senior Leaders will establish and implement a systematic process through which they will use the President's Quality Award Criteria to assess and improve the performance of the organization.

STRATEGIC PLANNING: Strategic Planning is essential to the long term viability of the Agency. FHWA Leadership will use the Strategic Plan to set the direction for the agency, prepare annual performance plans, and allocate resources for attaining our strategic goals. We will establish metrics to measure and assess how well we are delivering products and services to our customers. We will continuously monitor progress, business trends and the outside environment to adjust our strategic plan. FHWA's Strategic Plan will be deployed throughout the agency to the unit, division, team and individual level. Performance will be measured based on achievement of Strategic objectives.

Key FY 1999 Performance Goal: *The FHWA Strategic Plan is deployed by translating the strategies into unit, division, team and individual action plans with performance measures based on the strategic objectives and performance goals.*

Major Initiative
Leadership at all levels will establish systems to ensure deployment of strategic initiatives and to measure performance with respect to strategic goals and partner/customer expectations.

HUMAN RESOURCE DEVELOPMENT AND MANAGEMENT: FHWA's successful performance depends on a work force aligned with the Agency's objectives. Employees will work in a positive, supportive organizational environment where all employees participate, learn and grow. The FHWA will continue to develop and maintain a work force renowned for its professional leadership and technical competence with the widest spectrum of skills and experiences. FHWA will develop and use the full potential of its human resources and will create an environment conducive to performance excellence and personal and organizational growth.

Key FY 1999 Performance Goal: *FHWA's employees have the technical competence, authority and tools to meet agency and customer needs.*

Major Initiatives
Implement Skills Assessment report.
Implement scheduled reorganization actions
<u>DOT-wide CMS Initiative:</u> Assess the diversity climate in FHWA and develop an action plan for addressing the needs identified.

CUSTOMER AND PARTNER FOCUS: FHWA will achieve success through extensive cooperation and partnering with State and local transportation agencies. FHWA will utilize a comprehensive system for determining the needs and expectations of the highway user. We will receive and act upon feedback from customer surveys, listening sessions, focus groups and other learning techniques. FHWA will use that information to improve products and services to ensure that customer and partner needs are met.

Key FY 1999 Performance Goal: *Customer and partner needs are identified and their level of satisfaction is measured.*

Major Initiatives
Leaders will develop systems for identifying customers and partners, determining their expectations, and for measuring satisfaction.
<u>DOT-wide CMS Initiative:</u> Assess FHWA's partnerships with industry and State and local governments to determine how to meet mutual objectives and goals, and implement a plan to strengthen those relationships.

INFORMATION AND ANALYSIS: FHWA needs information to support key processes and improve performance. Methods must be in place to select, analyze (organize) and use this data. We will improve or re-engineer current information systems, to ensure that systems to provide and analyze information are available to measure and improve Agency performance. Key information systems which support achievement of strategic goals will be identified and evaluated. Financial and non-financial data needed to track and improve Agency performance will be easily accessible and reliable. Leaders will create an environment in which knowledge, as a key asset of the organization, is managed, shared and used effectively.

Key FY 1999 Performance Goal: *Information systems that support meeting and tracking FHWA strategic goals are identified, developed, accessible and reliable.*

Major Initiatives
Identify key business information systems that support meeting DOT and FHWA Strategic goals, and develop action plans to improve these to provide the timely, reliable and accessible information needed.
<u>DOT-wide CMS Initiative:</u> Ensure that all FHWA mission-critical IT systems are Year 2000 compliant; validation phase by 12/31/98, implementation phase by 3/31/99.

PROCESS MANAGEMENT: FHWA will use customer-focused support, service and delivery processes to improve performance and enhance our products and services. We will employ appropriate feedback mechanisms and assessments from customers and partners. The performance of FHWA's program/product delivery processes will be measurably improved.

Key FY 1999 Performance Goal: *FHWA's key processes are designed, effectively managed and improved to achieve better performance.*

Major Initiative
Consult with partners and stakeholders to identify key FHWA processes and measures of the performance of those processes, and develop a priority list of critically needed improvements.

BUSINESS RESULTS (METRICS): Performance measurement is fundamental to the Quality Journey. FHWA must measure effectiveness in achieving improved quality and customer service. Performance measures will be established for customer satisfaction, financial and program performance, human resources, and key business processes.

Key FY 1999 Performance Goal: *Partner and customer focused performance measures are defined, developed and monitored to track FHWA performance.*

Major Initiative
Develop or improve measurement systems in all results areas.

Performance Measures:

Improvement in the results (scores, strengths, areas for improvement) of the annual assessments using the President's Quality Award criteria.

Indicators: Assessment scores, improvement actions completed

Improvement in the results achieved with respect to the FHWA Strategic Goals.

Indicators: Described in the FHWA's Strategic and Performance Plans

Improvement in the results shown in the periodic Employee Surveys.

Indicators: Levels of employee satisfaction with agency management and work life practices

